

Claims

I claim:

1. A grader for spreading and smoothing material, the grader adapted to be attached to a lift unit of a material handling vehicle, the grader comprising:

a first horizontally elongate beam comprising a first and a second side, the first beam adapted to engage, spread and smooth the material;

a second horizontally elongate beam coupled to the first horizontally elongate beam and having a length greater than the length of the first beam, the second horizontally elongate beam comprising a first and a second side which correspond in orientation to the first and second side of the first beam, the second beam adapted to further engage, spread and smooth the material;

a linkage assembly for releasably attaching the first beam to the lift unit of the material handling vehicle;

wherein the grader is adapted to be pulled in a first direction wherein the lift unit of the material handling vehicle may engage the material first, followed by the first beam and then followed by the second beam, wherein as the grader is pulled in the first direction the first sides of the elongate beams face the material; and

wherein the grader is adapted to be flipped over and pulled in a second direction wherein the lift unit of the material handling vehicle may engage the material first, followed by the first beam and then followed by the second beam, wherein as the grader is pulled in the second direction the second sides of the elongate beams face the material.

2. The grader of claim 1 wherein the first and the second sides of the first and second beam each have at least two ground-engaging edges.

3. The grader of claim 2 wherein the lift unit of the material handling vehicle may be controllably raised and lowered, thereby controllably raising and lowering the grader such that none or any number of the ground-engaging edges of the first and second beam may engage the material.

4. The grader of claim 3 wherein the second beam weighs down the first beam when first beam is raised off of the material to add stability to the grader.

5. The grader of claim 2 further comprising at least one channel between the ground-engaging edges to at least temporarily hold the material during use of the grader.

6. The grader of claim 1 wherein the second beam is coupled to the first beam with a plurality of linkage bolts.

7. The grader of claim 6 wherein each linkage bolt comprises a V-bolt.

8. The grader of claim 1 wherein the first and second beams comprise steel I-beams.

9. The grader of claim 1 further comprising a material guard attached to each end of the second beam to assist in keeping the material generally contained, the material guard projecting in a direction toward the first beam

10. The grader of claim 1 wherein the linkage assembly comprises one or more subassemblies, each subassembly comprising a linkage bolt attached to the first beam, a tug chain attached to the linkage bolt, and a key bolt attaching the tug chain to the lift unit of the material handling vehicle.

11. The grader of claim 1 further comprising a weight bar attached to the small beam.

12. The grader of claim 1 further comprising a brush rake attached to the first beam.

13. The grader of claim 1 further comprising a snow removal attachment.